PRESS STATEMENT FROM
THE SOUTH AFRICAN SOCIETY FOR CLINICAL MICROBIOLOGY
WORLD HEALTH DAY 7 APRIL 2011
"COMBAT ANTIMICROBIAL RESISTANCE"

SASCM supports World Health Day and the World Health Organisation's initiatives to Combat Antimicrobial Resistance.

Antibiotic resistance is of major concern globally, and in South Africa, because infections due to resistant bacteria often fail to respond to standard therapies, leading to prolonged illness and increased risk of death. As patients remain infectious (capable of transmitting the infection to others) for longer, the risk of spread to other people increases, leading to potential outbreaks. Alternative antibiotics for resistant bacteria are frequently more expensive, increasing the costs of health care. The paucity of new antibiotics in development means that we face the threat of a return to the pre-antibiotic era, with the potential compromise of many of the achievements of modern medicine.

Surveillance undertaken by SASCM in South Africa reveals that

- Approximately 40% of *Staphylococcus aureus* causing bloodstream infections in patients in the major academic hospitals in the public sector are resistant to the first-line antibiotic, cloxacillin (methicillin-resistant *S. aureus* or MRSA). These patients require treatment with more toxic, less effective antibiotics. *S. aureus* is a major cause of infections amongst both hospitalised patients and those in the community. Infections range from mild skin infections to severe, life-threatening infections such as bloodstream infections and pneumonia.
- Approximately 60 % of *Klebsiella pneumoniae* causing bloodstream infections in the major academic hospitals in the public sector contain an enzyme, called an "extended spectrum beta-lactamase" (ESBL) that renders them resistant to broad spectrum antibiotics frequently used for treatment of serious infections. *K. pneumoniae* causes life-threatening infections amongst hospitalised patients and has been responsible for several documented hospital outbreaks in South Africa, for example, among neonates at Mahatma Gandhi hospital in KwaZulu-Natal in 2005. Treatment options for these infections are limited.
- Recent outbreaks of *Pseudomonas aeruginosa* resistant to all conventional antibiotics have occurred in both the public as well as the private sector. These infections may be untreatable with currently available antibiotics. *P. aeruginosa* causes life-threatening infections amongst hospitalised patients.

- In the private sector, more than 20% of *Escherichia coli* isolated from the urine are resistant to ciprofloxacin. *E. coli* is the commonest cause of urinary tract infections and ciprofloxacin is the first-line antibiotic most commonly used for treatment.

Other South African studies in recent years have documented

- High rates of multidrug-resistant (MDR) and extensively drug-resistant (XDR) tuberculosis in all provinces of South Africa
- The emergence of resistance to fluoroquinolone antibiotics in *Neisseria gonorrhoeae*. This has necessitated a change in therapy guidelines and the introduction of cefixime. Resistance to cefixime has already been detected in the Far East, and this has very serious implications as cefixime represents the last convenient single dose oral antibiotic for the treatment and control of gonorrhoea.

In an effort to combat antimicrobial resistance, SASCM calls for

- Allocation of substantially increased resources, both human and capital, to infection prevention and control initiatives in public and private sector health care facilities
- Development of programmes to promote the responsible use of antibiotics. These should be coordinated and driven by a team of specialists, and need a strong educational component to change perceptions among health care professionals and the general public.
- Improved surveillance of healthcare-associated and community-associated infections to better understand the burden and impact of antibiotic resistance and to detect the emergence of new antibiotic resistance trends

For further information, please see website (www.fidssa.co.za/A_NASF_ExCom.asp) or contact the SASCM secretary: Dr Colleen Bamford (colleen.bamford@nhls.ac.za)